



# Statistical Brief

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## Low Birth Weight and Children's Health

by

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### Introduction

On average, most infants weigh approximately 2700 to 4000 grams (6 to 9 pounds) at birth. Low birth weight (LBW) is defined as birth weight less than 2500 grams (or 5½ pounds).<sup>1</sup> Over the past 20 years, the rate of LBW in North Carolina has been increasing, from 8.0 percent in 1990 to 9.1 percent in 2008.<sup>2</sup> Although similar trends are also seen at the national level, the LBW rate in North Carolina remains above the national average of 8.2 percent. Currently, the lowest LBW rates are found in Alaska (ranked first at 6.0%) and Oregon (ranked second at 6.1%), and the highest rate in Mississippi (ranked 50<sup>th</sup> at 11.8%). North Carolina ranks 40<sup>th</sup> in the United States, with a higher rate found among non-Hispanic African American infants (14.4%) and lower rates among non-Hispanic whites (7.7%) and Hispanics (6.2%).

Birth weight is an important predictor of infant morbidity and mortality, as well as long-term health

outcomes.<sup>3-5</sup> LBW infants have an increased risk for health conditions, such as childhood asthma,<sup>6</sup> as well as increased risks of developing behavioral and emotional problems during childhood and adolescence,<sup>7</sup> such as depression, anxiety and attention deficit hyperactivity disorders.<sup>8-10</sup> In addition, children of LBW are also found to perform less well in school and are more likely to receive special education services compared to their normal birth weight (NBW) peers.<sup>11,12</sup>

The purpose of this report is to examine estimates of LBW by demographic characteristics in North Carolina through the 2005–2007 Child Health Assessment and Monitoring Program (CHAMP). In addition, measures of health status and school performance are compared between LBW and NBW children to examine the relationship between LBW with childhood health and school performance, while controlling for covariates.